FEDERAL-STATE COOPERATIVE SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for

Oregon

By

Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Oregon Agricultural Experiment Station

As of
APR. 1, 1950

Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer, U. S. Forest Service, National Park Service and other Federal, State and local organizations.

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS AND IRRIGATION WATER FORECASTS

FOR

OREGON

Report Prepared

by

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Definition of Terms on Map Following

Good - Runoff prospects normal or better, with sufficient flow for all demands of current season, and in the case of holdover reservoirs, for replacement of evaporation and other natural reservoir losses.

Fair - Subnormal runoff prospects, with some deficiency in meeting demands of current season when holdover storage is not available. If holdover storage available, adequate supply for current demands assured by some depletion of holdover storage.

Poor - Greatly subnormal runoff prospects with considerable deficiency of water for demands in current season when holdover storage not available. If holdover storage available, runoff prospects are considered poor if very heavy depletions of holdover storage are necessary to meet current demands.

INDEX TO SNOW COURSES

Number	Name	Elev.
	UPPER COLUMBIA DRAINAGE Lower Snake in Oregon	
	OWYHEE RIVER	
Nev. 6	Big Bend	6800
Nev. 1	Buckskin, Lower	6800
Nev. 2	Buckskin, Upper	8200
952	Fish Creek	7900
Nev. 7	Fry Canyon	6800
Nev. 5	Gold Creek Ranger Sta.	6600
Nev. 4	Granite Peak	8600
Nev. 9	Jack Creek, Lower	7000
Nev. 10	Jack Creek, Upper	7800
Nev. 3	Martin Creek	7000
Nev. 8	Rodeo Flat	7000
Ida. 12	Silver City	6400
951	Silvies	6900
Ida. 13	South Mountain No. 22	6340
Nev. 12	Taylor Canyon	5200
	MALHEUR RIVER	
133	Blue Mountain Spring	5900
137	Crane Prairie	5375
136	Lake Creek	5120
134	Rock Spring	5100
135	Stinking Water	4800
	BURNT RIVER	
143	Barney Creek	5950
141	Blue Mountain Summit	5098
156	Dooley Mountain	5430
142	Tipton	5100
	POWDER RIVER	
155	Anthony Lake	7125
154	Bourne	5800
156	Dooley Mountain	5430
151B	Eilertson Meadows	5400
249	Gold Center	5340
157	Goodrich Lake	6775
184	Summit Springs	6000
185	Taylor Green	5740
	PINE CREEK	
161	Schneider Meadows	5400
	INNAHA RIVER	
171	Coverdale	4250
	GRANDE RONDE RIVER	
183	Aneroid Lake	7480
183A	Aneroid Lake No. 2	7000
155	Anthony Lake	7125
188	Beaver Reservoir	5340
187	Camp Carson	5970
186A	Moss Spring	5850
184	Summit Springs	6000
185	Taylor Green	5740
212	Tollgate	5070

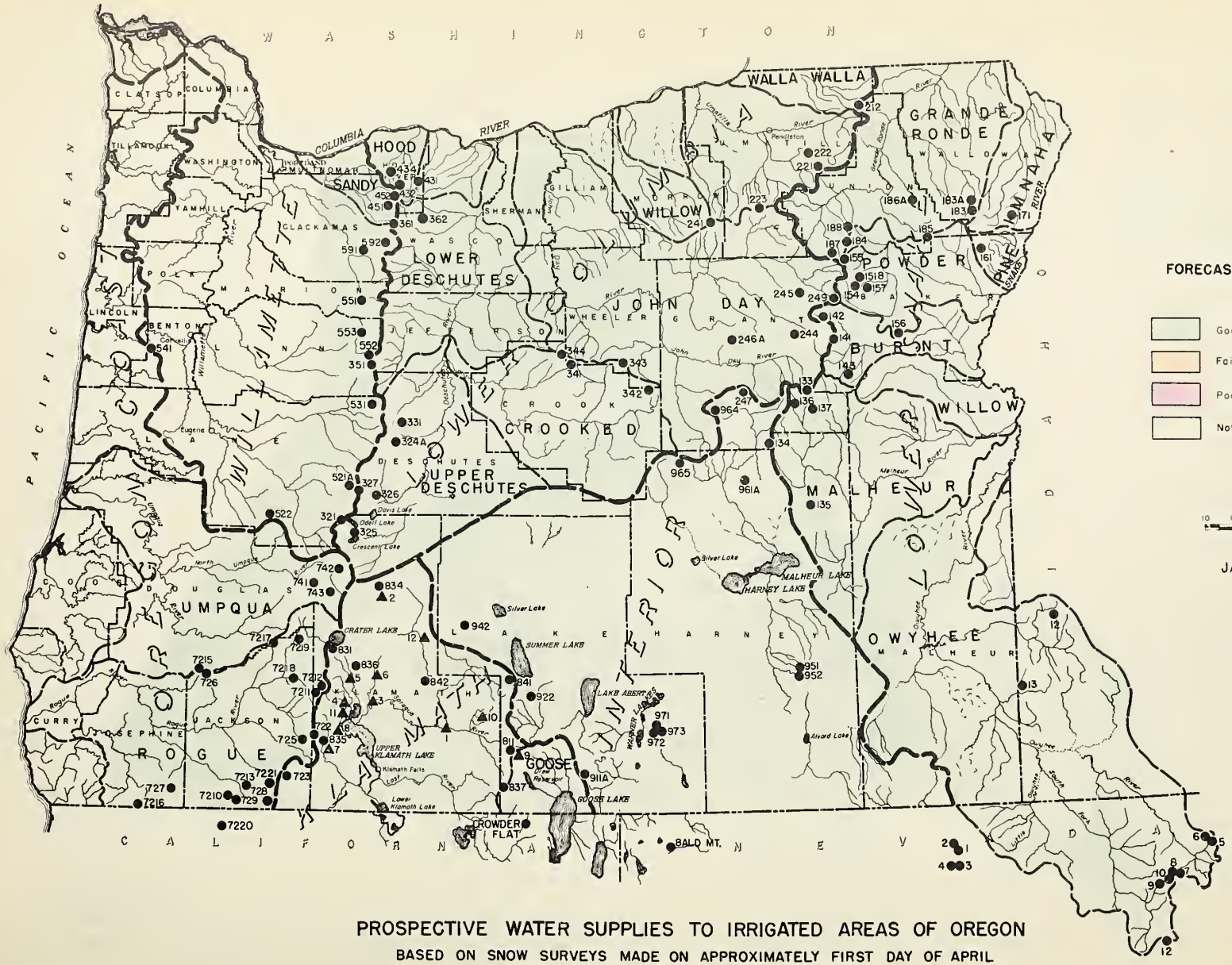
Number	Name	Elev.
	LOWER COLUMBIA DRAINAGE	
	WALLA WALLA RIVER	
212	Tollgate	5070
	UMATILLA RIVER	
222	Emigrant Springs	3925
223	Lucky Strike	5050
221	Meacham	4300
212	Tollgate	5070
	WILLOW CREEK	
241	Arbuckle Mountain	5400
	JOHN DAY RIVER	
241	Arbuckle Mountain	5400
246A	Beech Creek Summit	4800
133	Blue Mountain Spring	5900
141	Blue Mountain Summit	5098
244	Dixie Springs	6650
249	Gold Center	5340
964	Izee Summit	5293
245	Olive Lake	6000
965	Snow Mountain	6300
247B	Starr Ridge	5150
	DESCHUTES RIVER	
326	Caldwell Ranch	4400
321	Cascade Summit	4880
327	Charlton Lake	5750
361	Clear Lake	3500
325	Crescent Lake	4760
343	Derr	5670
351	Hogg Pass	4755
344	Marks Creek	4540
324A	New Dutchman Flat	6400
341	Ochoo Meadows	5200
362	Rock Creek	4200
965	Snow Mountain	6300
342	Tamarack	4800
331	Three Creeks Meadows	5600
	HOOD RIVER	
431	Brooks Meadows	4300
434	Red Hill	4400
432	Tilly Jane-Mt. Hood	6000
	SANDY RIVER	
361	Clear Lake	3500
[illegible]	Phlox Point-Mt. Hood	5600
451	Still Creek	3700
	CLACKAMAS RIVER	
592	Clackamas Lake	3400
591	Peavine Ridge	3500

Number	Name	Elev.
	WILLAMETTE RIVER	
551	Breitenbush	2325
321	Cascade Summit	4880
522	Champion	4500
327	Charlton Lake	5750
351	Hogg Pass	4755
531	McKenzie	4800
553	Marion Forks	2730
541	Mary's Peak	3620
552	Santiam Junction	3990
521A	Waldo Lake	5500
	KLAMATH LAKE BASIN	
831	Annie Spring	6018
722	Billie Creek Divide	6000
834	Chemult No. 1	4760
Calif.	Crowder Flat	5200
723	Hyatt Prairie Reservoir	4900
835	Lake of the Woods No. 1	4960
811	Quartz Mountain	5320
7211	Seven Lakes No. 1	6800
7212	Seven Lakes No. 2	6200
837	Strawberry	5600
841	Summer Rim	7200
836	Sun Mountain	5350
842	Taylor Butte	5100
	GOOSE LAKE BASIN	
911A	Camas Creek	5720
811	Quartz Mountain	5320
837	Strawberry	5600

INDEX TO THE CALIFORNIA OREGON POWER COMPANY SNOW WATER STATIONS

	KLAMATH LAKE BASIN	
1	Beatty	4300
2	Chemult	4761
3	Chiloquin	4187
4	Crystal	4200
5	Fort Klamath	4150
6	Kirk	4533
7	Lake of the Woods	4960
8	Pelican	4200
9	Quartz Mountain	5504
10	Richardson Ranch	4800
12	Yamsey	4600
	GOOSE LAKE BASIN	
9	Quartz Mountain	5504

Number	Name	Elev.
	INTERIOR DRAINAGE	
	SILVER LAKE	
942	Silver Creek	4900
	CHEWAUGAN RIVER	
922	Mill Creek	6200
	HARNEY BASIN	
973	Deer Creek	6670
952	Fish Creek	7900
971	Hart Mountain	6350
961A	Idylwild Park	5200
964	Izee Summit	5293
134	Rock Spring	5100
951	Silvies	6900
965	Snow Mountain	6300
247B	Starr Ridge	5150
	WARNER LAKE	
911A	Camas Creek	5720
	GUANO LAKE	
Nev.	Bald Mountain	6720
972	Guano Creek	6480
	WEST COAST DRAINAGE	
	UMPQUA RIVER	
522	Champion	4500
743	Diamond Lake	5315
726	Goolaway Gap	3000
7215	Goolaway Mountain	3730
742	N.Umpqua near Lake Creek	4215
741	Trap Creek	3800
7217	Whaleback	5140
	ROGUE RIVER	
7216	Althouse	4400
831	Annie Spring	6018
729	Big Red Mountain	6500
722	Billie Creek Divide	6000
725	Fish Lake	4865
726	Goolaway Gap	3000
7215	Goolaway Mountain	3730
727	Grayback Peak	6000
7221	Hobart Lake	5010
723	Hyatt Prairie Reservoir	4900
7210	Little Red Mountain	6500
7220	Scragg Mountain	6200
7211	Seven Lakes No. 1	6800
7212	Seven Lakes No. 2	6200
7219	Silver Burn	3720
728	Siskiyou Summit	4630
7218	South Fork Canal	3500
7213	Wagner Butte	6900
7217	Whaleback	5140



PROSPECTIVE WATER SUPPLIES TO IRRIGATED AREAS OF OREGON

BASED ON SNOW SURVEYS MADE ON APPROXIMATELY FIRST DAY OF APRIL

(Dry Farm Areas or Forest and Range Lands Not Necessarily Included)

7-L-8563

FINAL WATER SUPPLY OUTLOOK

Oregon's 1950 water supply outlook is "good" throughout the state with prospects nearly equal to the excellent supplies of 1943 and 1946 and better than last year in some areas. Deficiencies or shortages are not to be expected anywhere in the state if normal conditions of snow-melt and runoff prevail. New records of runoff will be established in the Deschutes watersheds with unusually high flows to be expected on Willamette River tributaries draining the western Cascade slope from the Coast Fork and Row River north to and including the Santiam River.

Mountain snow cover again this year has broken previous April 1 records at 7 out of 116 stations, especially in the central Cascades. Water content of the snow, as of April 1, is 44 percent above average for the 116 snow courses. Snow-stored water is 27 percent greater than one month ago, 7 percent less than last year at this time and 36 percent greater than in 1948, the heavy snow and flood year.

In general, the snow pack above 5000 feet elevation is 35 percent above one month ago, 29 percent above average, 13 percent less than one year ago and 26 percent greater than in 1948. Low elevation snow, lying between 2000 and 5000 feet, is 19 percent greater than one month ago, the same as in 1949, 63 percent greater than in 1948 and 90 percent greater than average. Of great importance to this year's runoff is the very heavy snow pack in the low elevations.

Record streamflows are forecast for Crescent Creek on the head of the Little Deschutes River and for Odell Creek and the Main Deschutes River above Wickiup reservoir. Extremely heavy snow cover, especially at low elevations, on the watersheds of the Santiam Rivers, the McKenzie and the Main Willamette Rivers will produce high seasonal flows which are likely to be accompanied by high peak flows approaching previous record peaks.

Watershed soils are believed to be wetter than average - a factor favoring well-sustained flow from the snow pack. In some southern Malheur County and northeastern Lake County areas, the soils are below average in moisture.

Reservoired water supplies are, in general, "fair" to "good." Total water stored in all reservoirs is 10 percent greater than at this time last year, 14 percent greater than in 1948 and 11 percent less than average storage in the past 10 years. Good inflows are expected in nearly all reservoirs. Many small privately owned reservoirs scattered throughout the state are already full or will have a good inflow. Present storage in 25 larger reservoirs is 63 percent of capacity compared with the average storage which is 71 percent of capacity.

Tabulated streamflow forecasts are presented on pages 2, 3 and 4. Present reservoir storage compared with past storage is listed on page 5. Detailed reports of nine local water forecast committee meetings are given on pages 6 to 15 inclusive.

FINAL STREAMFLOW FORECASTS, APRIL 1, 1950

The following summarized runoff forecasts are based on mountain snow cover and on the assumption that precipitation and temperature during the runoff season will be approximately normal. Appreciable deviations from normal of temperature and/or precipitation, especially during April, May or June, will correspondingly modify these forecasts.

BASIN AND STREAM	Apr.-Sept.,inc. Forecast 1950	Streamflow in Thous. A. F. Measured Runoff* 1949	1948	1947	10-yr.avg. 1939-48
Columbia R. at The Dalles	112000.0d	127590.0			88246.5
		92854.0		98488.0	
NORTHCENTRAL OREGON					
Hood River, W.Fk. near Dee	200.0	225.1	158.1	111.1	130.0
White R. below Tygh Valley	220.0	265.6	177.0	103.1	124.5
Hood R. at Powerdale plus Power Canal	400.0	483.2	338.9	242.5	261.7
UMATILLA-WALLA WALLA					
Walla Walla R.So.Fk. nr. Milton	70.0	a	102.1	62.7	66.2
Umatilla R. near Gibbon	95.0	a	148.7	53.9	83.3
Umatilla R. at Pendleton	185.0	a	311.3	96.4	161.9
McKay Cr. above McKay Reservoir	29.0	a	63.4	16.1	28.6
NORTHEASTERN OREGON					
Grande Ronde R. nr. LaGrande	210.0	a	366.2	118.8	173.9
Catherine Creek near Union	80.0	a	109.9	60.9	68.8
Bear Creek near Wallowa	85.0	a	97.4	69.6	68.6
Lostine R. near Lostine	145.0	a	153.5	127.7	118.9
Hurricane Cr. near Joseph	52.0	a	59.4	49.9	43.6
Wallowa R. E.Fk. plus Power Pl.	14.0	a	15.7	10.4	11.0
Imnaha River at Imnaha	385.0	a	451.2	228.1	286.5
Powder River at Salisbury	75.0	a	78.6	43.6	58.6
Burnt R.nr.Hereford(Natural Flow)	45.0	a	62.7	20.2	37.6
EASTERN OREGON					
Malheur R.Mid.Fk. nr. Drewsey	70.0	a	74.0	34.0	71.4
Malheur R. N. Fk. at Beulah	57.0	a	64.4	32.7	57.3
Owyhee R. above Owyhee Res.	320.0	a	237.3	176.6	376.1
John Day R. at Prairie City, combined with Power Canal	75.0	a	91.4	38.6	50.3
John Day R. Mid. Fk. at Ritter	180.0	a	223.7	93.1	117.0
John Day R. No. Fk. near Dale	355.0	a	425.0	216.5	236.7
Strawberry Cr. nr. Prairie City	9.0	a	11.0	7.9	8.1
HARNEY BASIN					
Silvies R. near Burns	75.0	a	133.1	47.7	90.2
Donner und Blitzen nr.Frenchglen	65.0	a	81.4	38.9	63.1
Trout Creek near Denio	7.0	a	8.4	3.8	8.4

* - Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer
a - Discharge data not available
d - Forecast by Boise office

Streamflow Forecasts, April, 1950 (Cont'd.)

BASIN AND STREAM	Apr.-Sept., inc. Forecast 1950	Streamflow in Thous. A. F. Measured Runoff* 1949	1948	1947	10-yr. Avg. 1939-48
CENTRAL OREGON					
Ochoco Reservoir Net Inflow	30.0	a	72.3	8.2	24.7
Crooked River near Post	180.0	a	206.9	40.6	113.9[e]
Crescent Lake Net Inflow	30.0	29.4	27.4	19.2	14.6
Little Deschutes R. near Lapine	120.0	a	105.1	64.9	67.9
Odell Creek near Crescent	40.0	34.9	34.7	28.8	25.3
Deschutes R. below Snow Creek	90.0	a	78.2	64.5	49.5
Crane Prairie Reservoir Inflow	170.0	a	a	123.4	96.3[f]
Deschutes R. at Pringle Falls	355.0	a	a	284.8	250.2[f]
Deschutes R. at Benham Falls	615.0	a	a	495.1	437.1[f]
Tumalo Creek and C.S. Canal	57.0	a	53.2	49.1	43.4
Squaw Cr. near Sisters	63.0	a	56.5	45.7	43.9
SOUTHCENTRAL OREGON					
Chewaucan R. near Paisley	70.0	a	74.5[b]	32.9[b]	60.2[b]
Deep Creek Above Adel	65.0	a	70.8[b]	29.1[b]	55.6[b]
KLAMATH BASIN					
Sprague R. near Chiloquin	240.0	184.0	239.9	105.5	211.3
Williamson R. below Sprague R.	350.0	320.6	356.3	223.8	350.0
Upper Klamath Lake Net Inflow	448.0	391.2	463.6	342.0	465.5
Clear Lake Reservoir Net Inflow	31.5	34.7	70.2	15.9	36.7
Gerber Reservoir Net Inflow	20.0	20.2	21.9	4.3	15.9
SOUTHERN OREGON					
Applegate R. near Ruch	130.0	a	166.3	64.6	105.6
Hyatt Reservoir Net Inflow	6.5	a	9.1	2.1	5.1
Fourmile Lake Net Inflow	8.0	a	11.0	6.0	7.2
Little Butte Cr. N.Fk. below Fish Lake (Natural Flow)	16.0	a	16.2	10.1	13.0
Rogue R. N.Fk. above Prospect	375.0	375.5	343.7	248.8	276.4
Rogue R. Mid Fk. plus Power Canal	86.0	a	83.1	63.4	68.4
Rogue R. So. Fk. above Imnaha Creek	70.0	80.3	69.7	41.4	49.8
Rogue R. below South Fork	775.0	a	732.5	539.9	601.8
Clearwater River above Trap Creek	65.0	71.8	67.4	61.4	58.5
No. Umpqua R. below Lake Creek	165.0	183.0	174.3	157.0	149.8
WILLAMETTE VALLEY					
Willamette R. Mid.Fk. at Eula	1300.0	1019.2	1025.9	737.1	717.6
McKenzie R. at McKenzie Bridge	710.0	716.4	580.0	501.2	496.4
McKenZie River near Vida	1600.0	1516.7	1419.5	1084.2	1065.8
Clackamas R. at Big Bottom	250.0	a	a	136.2	138.0[f]

* - Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer
a - Discharge data not available
b - April-June rather than April-Sept.
d - Forecast by Boise office
e - Excl. 1939
f - Excl. 1948

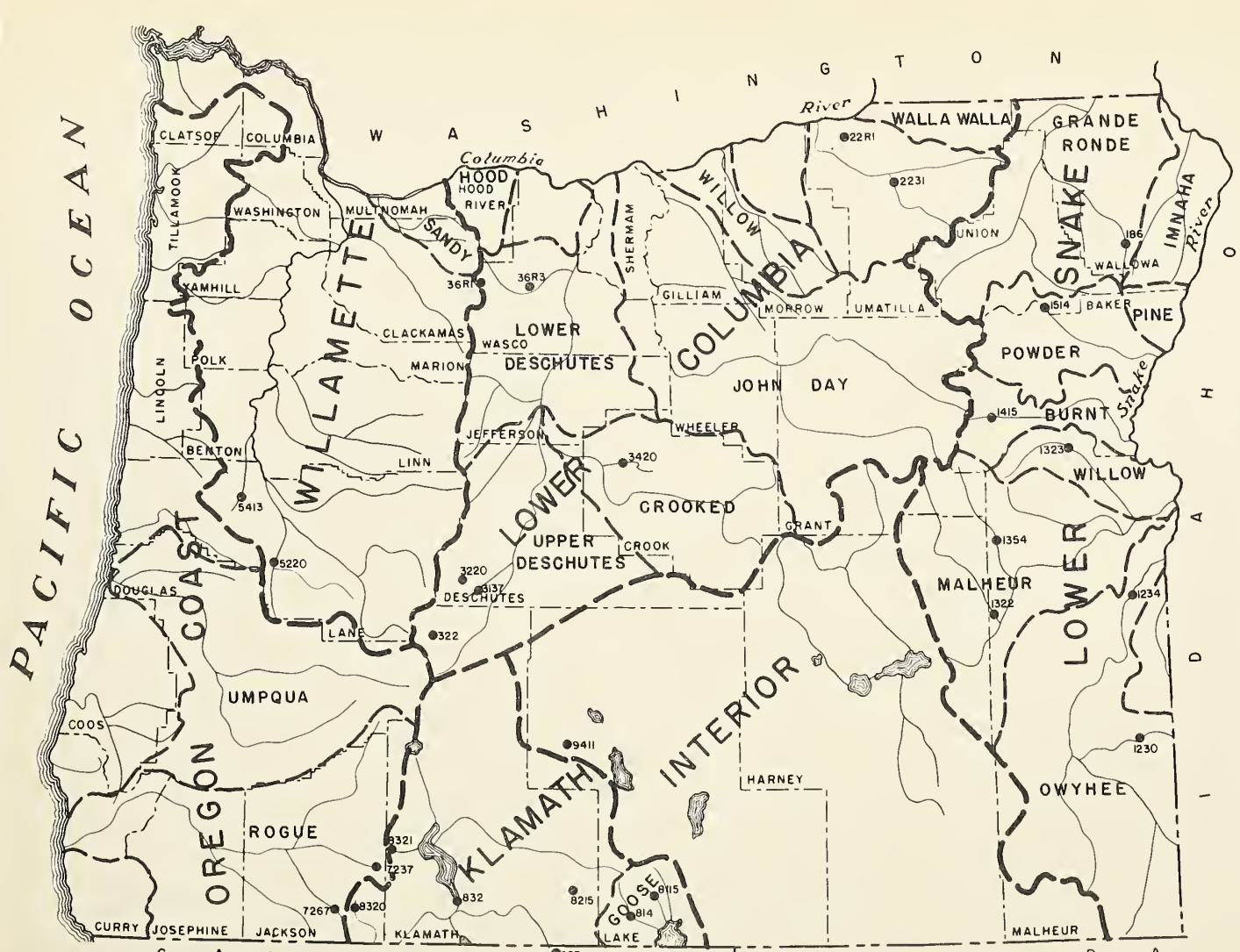
OREGON STREAMFLOW FORECASTS, APRIL 1, 1950

The following forecasts are for the period April 1 through July 1 and will be of value both to irrigationists and hydro-power generating interests:

BASIN AND STREAM	Apr.-July, Forecast 1950	Inc. Streamflow in Thous. A.F. Measured Runoff 1949	1948	1947	10-yr. Avg. 1939-48
NORTHCENTRAL OREGON					
Hood River, W. Fk. near Dee	170.0	200.0	a	91.6	110.6
White R. below Tygh Valley	190.0	245.6	159.1	88.1	110.7
UMATILLA-WALLA WALLA					
Walla Walla R.So.Fk.nr. Milton	58.0	a	86.1	49.0	54.3
Umatilla R. at Pendleton	180.0	a	304.9	92.2	157.3
McKay Cr. above McKay Reservoir	28.0	a	63.2	16.1	28.3
NORTHEASTERN OREGON					
Wallowa R.E.Fk.plus Power Pl.	12.0	a	13.1	8.5	8.8
Powder River at Salisbury	68.0	a	76.2	42.7	57.0
EASTERN OREGON					
Owyhee above Owyhee Reservoir	300.0	a	234.8	156.0	353.9
CENTRAL OREGON					
Little Deschutes R.nr.Lapine	110.0	a	92.9	56.0	55.0
Deschutes R. at Benham Falls	420.0	a	374.0	331.8	307.0
Deschutes R. at Pringle Falls	230.0	a	184.6	181.4	164.3
KLAMATH BASIN					
Williamson R.below Sprague R.	275.0	257.9	293.4	163.5	285.5
Upper Klamath Lake Net Inflow	340.0	320.4	376.6	221.6	354.4
SOUTHERN OREGON					
Rogue R.So.Fk.above Imnaha Cr.	58.0	69.6	58.6	34.6	42.2
Rogue R.Mid.Fk.plus Power Canal	68.0	a	66.1	49.3	53.8
Rogue R.N.Fk.above Prospect	320.0	324.1	289.7	199.5	229.1
Rogue R.below So. Fk.	650.0	a	598.3	423.6	483.4
WILLAMETTE VALLEY					
Clackamas R. at Big Bottom	200.0	a	a	105.3	109.1

a Discharge data not available

IMPORTANT OREGON RESERVOIRS



RESERVOIR NAME	NUMBER
Agency Valley	1354
Antelope	1230
Clear Lake	823
Clear Lake	36R1
Cold Springs	22R1
Cottage Grove	5220
Cottonwood	8115
Crane Prairie	3220
Crescent Lake	322
Drew Creek	814
Emigrant Gap	7267
Fern Ridge	5413
Fish Lake	7237
Four Mile Lake	8321
Gerber	8215
Hyatt Prairie	8320
McKay	2231
Ochoco	3420
Owyhee	1234
Rock Creek	36R3
Thief Valley	1514
Thompson Valley	9411
Unity	1415
Upper Klamath Lake	832
Wallowa Lake	186
Warm Springs	1322
Wickiup	3137
Willow Creek No. 3	1323

U.S DEPT. OF AGRICULTURE

SOIL CONSERVATION SERVICE
7-L-3060

STATUS OF RESERVOIR STORAGE, April 1, 1950

BASIN and STREAM	RESERVOIR	USABLE CAPACITY (Thous.A.F.)	THOUS.A.F. IN STORAGE ABOUT APRIL 1, 1950				10 yr.avg.
			1950	1949	1948	1947	1939-48
UPPER COLUMBIA DRAINAGE							
LOWER SNAKE IN OREGON							
Owyhee	Antelope	36.5	22.2	12.0	N.R.	11.0	17.0[d]
	Owyhee	715.0	529.8	356.7	397.9	595.4	607.5
Malheur	Warm Springs	191.0	48.2	64.2	42.3	137.7	141.7
	Agency Valley	60.0	33.8	53.6	45.5	52.7	53.3[i]
	Willow Creek	26.0	2.9	7.0	8.2	N.R.	7.1[i]
Burnt	Unity	25.2	6.3	13.0	12.0	24.0	16.9
Powder	Thief Valley	17.4	N.R.	6.9	17.4	17.8	17.1
Grande Ronde	Wallowa Lake	40.9	11.9	17.8	17.8	24.4	22.9
LOWER COLUMBIA DRAINAGE							
Umatilla	McKay	74.0	66.4	58.4	71.0	66.3	60.0
	Cold Springs	50.0	45.4	45.0	50.0	50.0	48.4
Deschutes	Ochoco	46.0	17.6	31.5	29.0	32.2	26.6
	Crescent Lake	56.0	56.0	51.6	48.7	52.1	39.3
	Crane Prairie	50.0	47.0	41.2	30.4	41.4	35.5
	Wickiup	180.0	185.3	188.0	149.8	97.8	67.2[e]
Willamette	Cottage Grove	30.1[b]	19.4	19.5	19.8	20.6	18.6[e]
	Fern Ridge	94.2[b]	62.8	62.1	65.0	68.0	55.6[f]
INTERIOR DRAINAGE							
Silver Lake	Thompson Valley	17.4	5.2	N.R.	N.R.	8.2	7.3[h]
WEST COAST DRAINAGE							
Rogue	Fish Lake	7.7	4.9	5.1	3.6	4.6	4.8
	Fourmile Lake[a]	16.0	7.3[j]	7.3	2.4	5.1	6.5
	Emigrant Gap	8.2	8.2	8.2	8.2	6.9	7.8
	Hyatt Prairie[a]	16.0	4.9	8.1	3.8	3.4	6.7
Klamath	Upper Klamath Lk	584.0[c]	419.4	376.0	389.3	407.8	442.7
	Gerber	94.0	42.0	32.8	29.0	42.5	56.8
	Clear Lake	440.2	149.3	172.3	152.4	226.7	269.4
Goose Lake	Cottonwood	4.1	3.0	0.0	1.2	2.4	1.5[g]
	Drew	62.5	46.3	46.3	29.0	35.3	48.1

N.R. - No Report
a - By ditch To Rogue River side from Klamath Drainage
b - Storage space reserved for flood control
c - Based on gage zero elevation of 4135.0
d - Excl. '48
e - Excl. '39 - '42
f - Excl. '39 - '41
g - Excl. '42
h - Excl. '39 - '42, '48
i - 1937-46 plus 1948
j - Feb. 28, '50

IRRIGATION WATER SUPPLY FORECASTS

SEASON OF 1950

- Forward -

Measurements of snow depth and water content were secured on all Oregon snow courses as near April 1 as possible. Watershed soil moisture determinations, usually made at 12 scattered stations during mid-March, were not obtained this year due to shortage of funds and personnel.

Local Water Forecast Committee meetings were held this year in nine important irrigated regions of the state during the period March 30 to April 7 as follows: Hood River for Northcentral Oregon; Pendleton for the Umatilla-Walla Walla Basin; Union for Northeastern Oregon; Ontario for Southeastern Oregon; Lakeview for Southcentral Oregon; and Klamath Falls for Southern Oregon. Most of the thirty-eight cooperating agencies were represented at these discussions.

Each committee's report, outlining the irrigation water prospect for 1950 in its respective area, is summarized below. Modifications of these forecasts may be required later in accordance with deviations of precipitation and temperature from normal during the runoff season.

Forecasts

Northcentral Oregon

Abundant water supplies for irrigation in Hood River, Wasco and Sherman counties appear to be guaranteed from the present mountain snow cover which is about 150 to 200 percent average and heavier than in 1948. Water regulation, which usually cuts off holders of late water rights, is not expected to be necessary this year.

Hood River Valley lands will have ample water supplies this year with the West Fork of Hood River forecast to discharge 200,000 acre feet during April-September. This flow compares favorably with 225,100 received last year and will equal about 154 percent of the 10-year average of 130,000 acre feet. The first four months, April-July, will bring all but 30,000 acre feet of this amount.

Flow of Middle and East Forks of Hood River is not gaged but from a relationship to the flow of the West Fork it is probable that Middle Fork will discharge about 40,000 and East Fork about 60,000 acre feet April through September.

Discharge of Hood River at Powerdale plus Power Canal will be about 400,000 acre feet for the six months. This is less than 483,200 acre feet discharged last year but it is 153 percent of average. April-July flow will be about 350,000 acre feet.

Lands on the West side of Hood River Valley, served from the Mt. Defiance-Greenpoint source, should have good water supplies again this year. Snow storage is now very similar to last year with possibility of a greater runoff.

Wasco County soils in the orchards in the vicinity of The Dalles are well wetted but not so wet as in Hood River Valley where the point of saturation

has been reached in some places. Other crop land soils in Wasco county are reported to be wetted deeper than last year.

Snow cover at the head of Fifteenmile Creek more than doubles the average figure but is not quite as heavy as last year. No stream regulation is expected this season.

White River at Tygh Valley is forecast to discharge 220,000 acre feet for the balance of the year and will furnish a satisfactory water supply this season. This flow will be 177 percent of the 10-year average but somewhat less than 265,600 acre feet received last year. About 190,000 acre feet of the above flow will come in the April-July period.

Badger, Rock and Gate Creeks and other small tributaries of White River should have a well sustained flow this year and should provide satisfactory supplies. Badger and Rock Creek reservoirs should fill easily.

Umatilla-Walla Walla Basin

Snow cover in the high watersheds of this area is ample to provide summer stream flow that will range from average to 15 percent above average. Adequate water supplies will result for all areas of this basin.

Crop land soil moisture is generally good but the effect of last year's short precipitation is evident in the lower soil depths. There appears a sufficient moisture content for good yields this year but slight reductions may be experienced in some areas.

South Fork of Walla Walla River near Milton will discharge 70,000 acre feet this irrigation season as compared with an average of 66,200 acre feet. April-July discharge will be about 58,000 acre feet. Adequate water will be discharged for lands served by this stream except that some late season deficiencies may occur for late rights on the Hudson Bay and Pleasant View Canals. Good summer rains would prevent this shortage.

Umatilla River at Pendleton will probably discharge 185,000 acre feet for the irrigation season. This flow is greater than 10-year average of 161,900 acre feet but is considerably less than 311,300 acre feet received in 1948. Good water supplies seem certain for all lands served by this stream.

Umatilla River near Gibbon above Meacham Creek will discharge 95,000 acre feet as compared with 148,700 acre feet in 1948 and average of 83,300 acre feet.

Cold Springs reservoir now holds 45,000 acre feet and will probably fill if the seasonal drawdown does not begin too early. However, satisfactory water will, in any event, be available from this source. Approximately 12,000 acre feet has discharged into this reservoir from local spring freshets.

McKay reservoir contains 66,070 acre feet and will more than fill from the good flow predicted for the creek this year.

McKay Creek above McKay reservoir should discharge 29,000 acre feet as compared with 63,400 in 1948 and average of 28,600 acre feet. April-July discharge will be about 28,000 acre feet. Excellent water supplies from this source are predicted for this year.

Birch and Butter Creeks in Umatilla county have a record snow pack at Lucky Strike snow course this year and should receive very good runoff, even better than in 1948.

Willow Creek in Morrow county and Rock Creek in Gilliam county also have a heavy snow cover on the heads of the watersheds and should receive water supplies much the same as in 1948.

Northeastern Oregon

Good to abundant water supplies in 1950 for Wallowa, Union and Baker counties will result from the mountain snow cover which is from 9 to 75 percent above average. Streamflow will be from 16 to 35 percent above average and will be satisfactory for all irrigated areas.

Imnaha River at Imnaha is forecast to discharge 385,000 acre feet during April-September as compared with a ten year average of 296,500 acre feet 1939 through 1948 and with 451,200 acre feet in 1948. This will be an abundant water supply.

Wallowa River, East Fork plus the power diversion is forecast to discharge 14,000 acre feet in the next six months as compared with 15,700 acre feet in 1948 and with a 10-year average of 11,000 acre feet. The first four months will bring 12,000 acre feet of this total forecast. Wallowa Lake with 11,940 acre feet now held in storage is below the 17,800 acre feet held last year and below the 10-year average storage of 22,900 acre feet. However, inflow to the reservoir this summer should be sufficient to provide a satisfactory irrigation supply.

Hurricane Creek will probably discharge 52,000 acre feet this year compared with 59,400 acre feet in 1948 and the 1939-48 average of 43,600 acre feet.

Lostine River will provide ample water this year with the forecast for the April-September discharge estimated at 145,000 acre feet compared with 153,500 acre feet in 1948 and a 10-year average of 118,900 acre feet.

Bear Creek discharge usually tapers off earlier in the season than the other Wallowa streams forecasted but is expected to sustain its flow longer than usual this year. The April-September discharge is forecast at 85,000 acre feet compared with the average figure of 68,600 acre feet. The discharge in 1948 was 97,400 acre feet.

The Grande Ronde River at La Grande has a 10-year average discharge of 173,900 acre feet and will probably flow about 210,000 acre feet in the next six months. In 1948 a total of 366,200 acre feet were measured in this same period. Plentiful water supplies for irrigation from this source are certain.

Catherine Creek will discharge close to 80,000 acre feet this summer compared with 109,900 acre feet in the summer of 1948 and the average of 68,800 acre feet. This should be another good water year for this stream.

Eagle Creek and Pine Creek have a snow pack on their watersheds averaging from 107 to 120 percent of the average in water content. This should provide a good water supply for 1950 irrigation although it will not equal the best year's runoff.

North Powder river also has a good snow cover from which to draw its summer flow this year. Water content of the snow at Anthony Lake is now 33.1 inches

compared with 27.1 inches average. In 1949 the water content was 33.6 inches and in 1948 water content was 31.4 inches.

Baker Valley lands can expect good water supplies this summer with Power River discharge estimated to be 75,000 acre feet compared with 78,600 acre feet in 1948 and an average for the 10-year period (1939-48) of 58,600 acre feet.

Burnt River will discharge about 45,000 acre feet this summer compared with an average of 37,600 acre feet and the 1948 flow of 62,700 acre feet for the same period. Unity reservoir now holds about 6500 acre feet and is being held down to provide for high flows yet to come which should fill it easily.

Crop soil moisture conditions throughout the area were reported to be somewhat dryer than usual with subsoils definitely falling below average in moisture content. Soils under mountain snow cover are mostly unfrozen and already wet from early snow-melt.

Southeastern Oregon

Unusually heavy increases in the mountain snow pack on the Malheur and Owhyee River watersheds during the month of March have brightened the water outlook in that area from fair to an expected good supply for irrigated lands. Water content of the present snow mantle is equal to or up to 35 percent greater than that of last year; is from 136 to 195 percent of average, and considerably greater than in 1948.

Crop soil moisture is better than last year due to melting of a heavier than normal low-elevation snow cover. This is in spite of another deficient precipitation season.

Snow on the Owyhee watershed is also well above average but is probably not quite as favorable for runoff as on the Malheur. However, there is a good chance that the big Owyhee reservoir may fill this year and there should be sufficient water even for lands not served from reservoirs.

Malheur River, Middle Fork, near Drewsey is forecast to discharge 70,000 acre feet in the next 6 months as compared with a 10-year average of 71,400 acre feet. In 1948 the discharge was 74,000 acre feet. This flow will be in addition to the 48,150 acre feet of water now stored in the Warmsprings reservoir and when operated in conjunction with the Agency Valley reservoir will furnish a satisfactory water supply.

Malheur River, North Fork will discharge 57,000 acre feet into Agency Valley reservoir April through September. This flow will be average but will fall somewhat below the discharge of 1948 when 64,400 acre feet were measured. Total water available to the Warmsprings and Vale-Oregon Irrigation Districts should be about 210,000 acre feet which allows the irrigators to get by this year but will provide for little or no hold-over storage in these two reservoirs.

Bully Creek has a good snow cover and a good water year is expected there.

On Willow Creek the Brogan reservoir (also known as Willow Creek No. 3) now contains about 2,863 acre feet of water which is considerably below the 7,000 acre feet average storage at this date. Local feeling is that there will be a good water supply this year from the very good snow cover but that this reservoir may not fill.

The Owyhee Project already has 458,800 acre feet of water stored in its huge reservoir and can expect a six month inflow of about 320,000 acre feet more which will fill this year if drawdown does not have to begin too soon. However, plenty of water is available again this year from that source.

Jordan Valley lands should also have adequate water supplies this year with the Antelope reservoir already holding 22,192 acre feet and the expectancy that it will fill within a month's time. The snow pack on the Jordan Creek watershed is about 150 percent of average.

Harney Basin

Good water supplies are indicated for irrigated lands in Harney Basin this year with the mountain snow pack averaging generally 17 percent above last year, 23 percent above 1948 and 57 percent above average. Soil moisture in the crop lands on the south half of the basin, especially in the Trout Creek area, are not as good as on the Silvies and Silver Creek watersheds where it is good.

Last year's streamflow was generally below expectations due to an extreme shortage of precipitation and more especially to cool drying winds of extended duration.

Flow of Silvies River near Burns is forecasted at 75,000 acre feet for April through September. This should give a supply better than last year and sufficient for the usual needs. Flow of this stream in 1948, the heavy runoff year, was 133,100 acre feet.

Silver Creek, west of Silvies river and sharing headwaters with it, Crooked river and the south fork of the John Day, is expected to be better than last year but not equal to the good year of 1948. Snow Mountain snow course has 43.4 inches of snow containing 16.2 inches of water compared to 15.0 inches water content last year.

South of Harney and Malheur Lakes the Donner und Blitzen River is forecast to discharge 65,000 acre feet compared with an average of 63,100 acre feet and 81,400 acre feet measured in 1948. This flow will be adequate for the lands irrigated from this source.

Streamflow in Catlow Valley is expected to be better than last year.

Trout Creek in the extreme south end of the county is forecast to discharge 7,000 acre feet as compared with 8,400 acre feet in 1948 and average of 8,400 acre feet. The water supply should be better than last year.

John Day Basin

Water content of the snow on the John Day watersheds varies from an amount equal to last year on up to 43 percent greater than last year, and is from 9 to 75 percent greater than average. Much of this snow fell in March.

Streamflow will be as high as 79 percent above average in some tributaries but will not equal the heavy flows of 1948.

Crop land soils are well wetted for this season as are the soils under the snow, a factor contributing to a good water year.

John Day River, North Fork near Dale is expected to discharge 355,000 acre feet in the following six months as compared with 425,000 acre feet in 1948 and the 10-year average of 236,700 acre feet.

John Day River, Middle Fork near Ritter is forecast to flow 180,000 acre feet as compared with 223,700 acre feet in 1948 and an average of 117,000 acre feet.

The main John Day River at Prairie City plus the Power Canal is estimated to discharge 75,000 acre feet compared with the 10-year average of 50,300 acre feet. The 1948 flow was 91,400 acre feet.

Sufficient water supplies for all irrigation needs are expected in the John Day basin for the 1950 season.

Strawberry Creek near Prairie City with an average flow of 8,100 acre feet can expect a discharge of about 7,000 acre feet this year April through September. The flow in 1948 was 11,000 acre feet.

Central Oregon

Water supplies in Crook, Deschutes and Jefferson counties for 1950 should be sufficient for all usual irrigation needs on the Crooked River, but adequate to abundant on parts of the Deschutes where some new streamflow records are expected.

Watershed soils and cropland soils appear to be well wetted this year throughout the entire area. Late summer flows should be better sustained than last year.

Snow on Ochoco Creek watershed is 4 percent greater than last year, 64 percent greater than in 1948 and 86 percent above average.

Inflow into Ochoco Reservoir has built the stored amount of water from nothing in early winter to a total of 17,635 at the end of March. Inflow yet to come during the April-September period is estimated at 30,000 acre feet compared with an average inflow of 24,700 acre feet. In 1948 the inflow was a record 72,300 acre feet. It is felt that there will be sufficient water for the 1950 irrigation season in this reservoir.

Snow cover on the main Crooked River is 94 percent of last year, 103 percent of 1948 and 134 percent of average.

Crooked River near Post is forecast to discharge about 180,000 acre feet this summer as compared with 206,900 acre feet in 1948 and 113,900 acre feet as a 10-year average. This flow should mean good supplies for Crooked River lands.

The headwaters of the Little Deschutes have a snow cover containing water about 108 percent of last year, 151 percent of 1948 and 197 percent of average. New records of water content were established at Windigo Pass and Crescent Lake snow courses.

Little Deschutes River near Lapine is forecast to flow 120,000 acre feet during April-September. This will be 77 percent above the average of 67,900 acre feet but not equal to the record flow of 145,000 acre feet in 1943.

Crescent Lake Net Inflow will probably be about 30,000 acre feet in the next six months which will be 205 percent average and will establish a new record. Storage in the Crescent Lake reservoir is now 56,000 acre feet which is the limit set by agreement so all of this flow of the creek will have to be spilled.

The main Deschutes River has a snow cover containing record water supplies. At Cascade Summit and Caldwell Ranch new records of water content were established. Water content of the snow generally is now 6 percent above last year, 46 percent greater than in 1948 and 94 percent above average.

Odell Creek near Crescent is forecast to discharge 40,000 acre feet this season compared with an average of 25,300 acre feet. This will be a new record since it will exceed the 34,900 acre feet measured in 1948.

Flow of Deschutes River below Snow Creek is estimated at 90,000 acre feet for April-September compared with 49,500 acre feet average. This flow exceeds the previous high flow of 85,000 acre feet discharged in 1943.

Inflow to Crane Prairie reservoir, where storage is now 47,000 acre feet, is estimated at about 170,000 acre feet compared with 96,300 acre feet average. This also will set a new record flow.

The Deschutes at Pringle Falls will discharge 355,000 acre feet and at Benham Falls it will reach 615,000 acre feet April through September. These flows will be 43 and 41 percent above average respectively. Flow at these two stations was slightly greater than the present forecasts during the heavy discharge of 1948.

Tumalo Creek and Columbia Southern Canal will discharge about 57,000 acre feet compared with 43,400 acre feet average and 53,200 acre feet in 1948. This will be a good supply.

Squaw Creek near Sisters, with a six months flow forecast at 63,000 acre feet, will have excellent supplies. Even the Plainview Ditch should have water until about the last of July.

Southcentral Oregon

Water supplies equaling or better than last year are indicated for irrigated lands of Lake county. Mountain snow is now greatly increased over what it was on the first of March and is nearly as great as last year on April 1. Water content of the snow is generally 50 percent greater than in 1948, 59 percent greater than average and only slightly less than last year.

Valley soils are well wet except for the extreme northeastern part of the county where moisture content is definitely below average.

Silver Lake valley lands will have good water supplies this year with storage in Thompson Valley reservoir now at 5,250 acre feet and a strong probability that it will fill. Summer Rim snow course has 20.4 inches of water in the snow compared with 14.9 inches last year.

Summer Lake Basin is dependent upon flow of Ana river and other springs which should have a well-sustained flow this season.

Chewaucan River is forecast to discharge 70,000 acre feet for the three months April-June which is about the same as last year. This flow will be 12 percent above average and will be a good supply. Mill Creek snow course has 9.6 inches of water in the snow compared with 5.7 inches average and 11.4 inches last year.

Goose Lake Valley lands will have a satisfactory season with Drew reservoir now holding 55,000 acre feet and runoff yet to come which will more than fill it. Cottonwood reservoir has 3,000 acre feet now and will be full very soon.

Crane Creek and other small streams of the Goose Lake valley are expected to produce more water than last year and to sustain their flow longer.

Warner Valley lands can expect water supplies about the same as last year. Flow of Deep Creek will probably come to 65,000 acre feet April through June, and will be 17 percent greater than the 10-year average flow of 55,600 acre feet. Twenty-mile and Honey Creeks will all produce about the same as last year. Hart Lake is not yet full but will likely spill over about May 10th making further pumping unnecessary.

Hart Mountain Antelope Refuge was extremely dry up to March of this year. If precipitation has been greatly above normal the past month the situation will have improved.

Guano Creek watershed has been similarly dry. Bald Mountain snow course over the line is California reports only 2.0 inches of water in the snow compared with 9.1 inches last year.

Southern Oregon

Water supplies for irrigated lands in Klamath, Jackson, Josephine, and Douglas counties will be good to very good this season. Crop land soil moisture is excellent throughout the area and the area and the soils under the snow pack are muddy. Well sustained flows are expected this fall if precipitation during summer and fall is normal.

Sprague River above Chiloquin is forecast to discharge 240,000 acre feet compared with 184,000 last year and 211,300 acre feet average flow.

Williamson River below Sprague is expected to flow 350,000 acre feet compared with 320,600 acre feet last year. This flow will be exactly average.

Net inflow to Upper Klamath Lake is predicted at 448,000 acre feet compared with 393,700 acre feet last year. Average for last 10 years is 454,800 acre feet. The lake will furnish satisfactory water supplies for all irrigation needs.

Gerber Reservoir now stores 41,980 acre feet and can expect an inflow of about 20,000 acre feet in the next six months. This inflow will be 14 percent greater than average. Inflow from October 1 to date has been 31,810 acre feet which is 87 percent of last 10 years' average.

Clear Lake Reservoir now stores 149,260 acre feet and has already received 63,550 acre feet inflow from the watershed. Flow into the reservoir in the

remaining six months of the season should be about 31,450 acre feet or 76 percent of the last 10-year average.

Satisfactory water supplies for all lands in the Klamath Project are assured for this year. The amount of hold-over in reservoirs will depend greatly on the climatic factors involved this summer.

Smaller reservoirs throughout Klamath county are already full or will fill. Flow of small streams is expected to surpass the flow of last year.

Rogue River, North Fork, above Prospect is forecast to discharge 375,000 acre feet April through September or 36 percent above average. This will equal last years flow but will be greater than the 343,700 measured in 1948.

Rogue River, Middle Fork, plus Power Canal is predicted to flow 86,000 acre feet compared with 83,100 acre feet in 1948. This flow will be 26 percent above average.

Rogue River, South Fork, above Imnaha Creek will discharge 70,000 acre feet this summer compared with 80,300 last year and 49,800 average. This gaging station has been discontinued but has been replaced by a station below the power diversion and Imnaha Creek. Verification of forecast will be made by subtracting these flows.

The main Rogue River, below South Fork is forecast to discharge 775,000 acre feet in the next six months compared with 732,500 acre feet in 1948. This flow will be 26 percent above the 10-year average of 601,800 acre feet.

The Grants Pass Irrigation District will have adequate water this year again with the low flow of the Rogue river not expected to drop below 1000 c.f.s. at Gold Ray Dam. Alternation of pumping into the district's canals becomes necessary only when low flow drops below 870 c.f.s.

The Bear Creek Valley lands will have adequate supplies this season with small hold-overs in some reservoirs if favorable conditions prevail. Medford and Rogue River Irrigation Districts draw their storage water from Fourmile and Fish Lake reservoirs where storage is now about 7,500 and 4,900 acre feet respectively.

Fourmile Lake is expected to receive an additional 8,000 acre feet in the next six months or about 11 percent above average for the last 10 years. The 1948 six-month flow was 11,000 acre feet.

Fish Lake inflow is indicated by measurements at North Fork Little Butte Creek (corrected for storage) and will be 16,000 acre feet in the April-September period or 23 percent above average. Flow for the same period in 1948 was 16,200 acre feet.

A total of 36,000 acre feet will be available to the Medford and Rogue River districts from these two sources and will be an ample water supply with the other sources of supply that are available.

Eagle Point Irrigation District can expect adequate water this season from Big Butte Creek where the snow reserves are now very good. Low-elevation snow has been exceptionally heavy this year.

Talent Irrigation District now has 4,900 acre feet in Hyatt reservoir and 8,200 acre feet in Emigrant reservoir which is full. Inflow remaining to come to Hyatt Lake is forecast at 6,500 acre feet or 27 percent above the 10-year average. Inflow in this period last year was about 6,900 acre feet. Total water available to the district this year is a little less than last year but enough to satisfy irrigation needs provided last year's drouth is not repeated.

Flow in McDonald Creek Canal which was shut off on August 18th last year is expected to run until about August 10th this year.

Applegate River near Ruch is forecast to discharge 130,000 acre feet compared with 166,300 acre feet in 1948 and an average of 105,600 acre feet. Some late water rights will be cut off before the close of the season.

Illinois River at Kerby will produce more water than last year for irrigation purposes. Snow at Althouse was 35.9 inches deep and contained 14.5 inches of water on March 31. Last year at this date the water content was 7.2 inches.

Evans Creek, Grave Creek and Jump-Off Joe will have better flows than last year and will be adequate supplies if favorable climatic conditions prevail.

In the Umpqua Basin streamflow will be above average with forecasts listed as follows:

North Umpqua River below Lake Creek is forecast to discharge 165,000 acre feet in the next six months compared with 183,000 last year and an average flow of 149,800 acre feet.

Clearwater River above Trap Creek is forecast to flow 65,000 acre feet as compared with 71,800 acre feet last year and 58,500 acre feet average.

Streamflow forecasts for Willamette Valley streams are listed on page 3 of this report.

STATUS OF SNOW COVER AS OF APRIL FIRST
Summary of Snow Survey Data
By Watersheds as of About April First

Stream Basin	Number of Snow Courses Averaged	Average Water Depth in Snow Cover (Inches) 1950	1949	1948	Avg. past yrs. of record	Yrs. of Record	1950 Snow Water Depth (Inches) as percent of that in 1949	1948	Avg.
Owyhee River	15	7.5	11.4				66		
	14	7.5		7.0		(1-22)		107	
	15	7.5			8.2				91
Malheur River	6	10.9	11.1				98		
	5	10.9		9.8		(5-20)		111	
	6	10.9			8.1				135
Burnt River	3	11.4	11.9				96		
	3	11.4		9.1		(5-15)		125	
	3	11.4			8.4				136
Powder River	6	19.1	19.9				96		
	7	23.3		19.6		(2-14)		129	
	7	23.3			17.8				131
Pine Creek	1	30.4	39.6				77		
	1	30.4		27.1		(12)		112	
	1	30.4			28.5				107
Imnaha River	2	38.9	34.6				112		
	2	38.9		27.8		(8-16)		140	
	2	38.9			24.4				159
Grande Ronde River	9	25.7	28.0				92		
	9	25.7		25.1		(8-21)		102	
	9	25.7			21.0				122
Walla Walla River	1	32.5	44.5				73		
	1	32.5		34.0		(19)		96	
	1	32.5			27.1				120
Umatilla River	4	17.9	22.4				80		
	4	17.9		18.0		(11-21)		99	
	4	17.9			13.5				133
Willow Creek	1	16.0	16.1				99		
	1	16.0		12.5		(21)		128	
	1	16.0			10.0				161
John Day River	10	15.4	14.8				104		
	10	15.4		14.5		(6-21)		106	
	10	15.4			11.2				137
Deschutes River	8	45.7	47.6				96		
	8	41.2		27.5		(2-20)		150	
	9	42.6			25.9				164
Crooked River	4	12.2	12.6				97		
	4	12.2		11.4		(6-21)		107	
	4	12.2			8.8				139

(Continued)

Stream Basin	Number of Snow Courses Averaged	Average Water Depth in Snow Cover (Inches) 1950	1949	1948	Avg. past yrs. of record	Yrs. of Record	1950 Snow Water Depth (Inches) as percent of that in 1949	1948	Avg.
Hood River	1	22.0	27.7				82		
	3	54.2		33.5		(1-17)		162	
	3	54.2			32.2				168
Sandy River	3	51.8	59.3				88		
	3	51.8		36.8		(13-18)		141	
	3	51.8			31.4				170
Clackamas River	2	31.5	34.3				92		
	2	31.5		14.1		(9-13)		223	
	2	31.5			15.6				202
Willamette River	7	50.4	50.5				100		
	7	49.1		32.6		(6-20)		151	
	8	49.8			28.0				177
Silver Lake Basin	1	0.0	0.0				100		
	1	0.0		0.0		(9)		100	
	1	0.0			0.7				0
Chewaucan River	1	9.6	11.4				84		
	1	9.6		4.9		(11)		196	
	1	9.6			5.7				168
Warner Lake	1	12.0	14.5				83		
	1	12.0		8.8		(11)		137	
	1	12.0			9.2				131
Guano Lake	1	2.0	9.1				22		
	1	2.0		2.2		(10)		91	
	1	2.0			3.0				67
Harney Basin	7	13.1	11.2				117		
	7	13.1		9.3		(6-19)		141	
	7	13.1			7.4				177
Umpqua River	6	37.1	33.5				101		
	6	37.1		30.3		(2-21)		122	
	6	37.1			24.3				153
Upper Rogue River	15	31.4	34.3				92		
	15	31.4		22.3		(2-19)		141	
	15	31.4			24.2				130
Applegate River	5	28.7	35.1				82		
	5	28.7		18.7		(8-15)		153	
	5	28.7			23.1				124
Illinois River	2	22.3	22.1				101		
	2	22.3		9.1		(13-14)		255	
	2	22.3			15.5				144
Klamath Lake Basin	21*	18.8	20.3				93		
	21*	18.8		13.0		(9-23)		159	
	22*	18.0			14.1				128
Goose Lake Basin	4*	7.8	11.1				70		
	4*	7.8		6.5		(9-19)		120	
	4*	7.8			5.7				137

* Including Copco water measurement stations.

OREGON SNOW SURVEYS, APRIL, 1950

DRAINAGE BASIN and SNOW COURSE	LOCATION					SNOW COVER MEASUREMENTS						
								Water Content (In.)			Past Record	
	Number or State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (In.)	1950	1949	1948	Years of Record	Av. Water Content (Inches)
UPPER COLUMBIA DRAINAGE												
LOWER SNAKE IN OREGON												
OWYHEE RIVER												
Big Bend	Nev.6	30	45N	56E	6700	3-30	36.8	12.7*	15.2	8.3	22	9.3
Disaster Peak	Nev.6	8	47N	34E	6500	4-2	19.5	7.2*	14.4	-	1	14.4
Fry Canyon	Nev.7	31	43N	54E	6800	4-4	24.2	8.8*	15.0	7.9	9	9.2
Gold Ck. Ranger Sta.	Nev.5	31	45N	56E	6600	3-30	24.6	8.2*	9.5	5.8	10	6.2
Granite Peak	Nev.4	22	44N	39E	7800	4-5	33.0	11.9*	8.9	9.7	10	11.5
Lower Buckskin	Nev.1	25	45N	39E	6700	4-3	22.7	10.1*	14.2	10.2	9	8.3
Lower Jack Creek	Nev.9	18	42N	53E	6800	4-5	0.0	0.0*	4.5	4.7	15	4.3
Martin Creek	Nev.3	18	44N	40E	6700	4-6	24.4	8.7*	8.6	9.7	9	8.4
Midas	Nev.6	18	39N	46E	7200	4-1	0.0	0.0*	8.0	1.4	9	2.6
Rodeo Flat	Nev.8	36	43N	53E	6800	4-4	21.6	7.8*	16.2	9.1	9	10.0
South Mountain No. 2	Idaho	35	7S	5W	6340	No report			16.8	11.8	10	11.4
Taylor Canyon	Nev.12	35	39N	53E	6200	4-4	0.0	0.0*	8.9	0.5	9	3.9
Tremewan Ranch	Nev.11	9	39N	55E	5700	3-30	0.0	0.0*	4.6	0.0	8	0.6
Upper Buckskin	Nev.2	11	45N	39E	7200	4-4	21.2	8.8*	9.1	10.4	14	11.0
Upper Jack Creek	Nev.10	9	42N	53E	7250	4-5	28.4	10.2*	14.3	11.6	9	10.6
Silver City	Idaho	6	5S	3W	6400	4-1	44.7	18.3	20.0	-	9	12.1
MALHEUR RIVER												
Barney Creek	143	16	14S	36E	5950	4-1	31.8	11.6	10.8	8.8	5	8.6
Blue Mountain Springs	133	21	15S	35E	5900	3-30	57.1	19.7	20.1	14.9	20	14.5
Crane Prairie	137	24	16S	34E	5375	3-29	36.7	12.1	13.1	10.4	12	7.8
Lake Creek	136	10	16S	33½E	5120	3-29	42.2	13.8	11.8	10.0	12	9.1
Rock Spring	134	23	18S	32E	5100	3-30	22.8	8.4	6.2	5.0	14	4.3
Stinking Water	135	33	21S	34E	4800	4-3	T	T*	-	T	11	0.6

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DRAINAGE BASIN and SNOW COURSE	LOCATION					SNOW COVER MEASUREMENTS						
								Water Content (In.)				Past Record
	Number or State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (In.)	1950	1949	1948	Years of Record	Av. Water Content (Inches)
BURNT RIVER												
Barney Creek	143	16	14S	36E	5950	4-1	31.8	11.6	10.8	8.8	5	8.6
Blue Mountain Summit	141	6	12S	36E	5098	3-30	36.1	12.1*	10.8	9.2	15	6.9
Dooley Mountain	156	32	11S	40E	5430	3-31	28.6	10.5	12.0	9.5	11	8.3
Tipton	142	34	10S	35½E	5100	Not measured			14.1	9.0d	17	9.6
POWDER RIVER												
Anthony Lake	155	18	7S	37E	7125	3-31	87.9	32.6	33.6d	31.4	14	27.1
Bourne	154	33	8S	37E	5800	3-31	58.5	20.5	17.0	15.4	14	14.9
Dooley Mountain	156	32	11S	40E	5430	3-31	28.6	10.5	12.0	9.5	11	8.3
Eilertson Meadows	151B	18	8S	38E	5400	Abt.4-1	36.2	15.8*	15.2	9.2	12	11.0
Gold Center	249	21	9S	36E	5340	3-31	44.4	16.8	12.6	13.5	11	10.7
Goodrich Lake	157	34&35	8S	38E	6775	3-29	125.6	48.2	-	34.7	2	33.0
Summit Springs	184	9	6S	37E	6000	Not measured			24.4	24.2	14	21.4
Taylor Green	185	3	6S	42E	5740	3-30	53.7	17.9	24.7	18.9	12	16.0
PINE CREEK												
Schneider Meadows	161	35	6S	45E	5400	3-29	85.9	30.4	39.6	27.1	12	28.5
IMNAHA RIVER												
Aneroid Lake No. 1	183	16	4S	45E	7480	3-30	113.7	45.3*	39.2	38.4	16	35.0
Aneroid Lake No. 2	183A	16	4S	45E	7000	3-30	85.6	32.6*	29.9	32.8	8	28.6
Coverdale	171	22	5S	47E	4250	Not measured			-	12.1	4	9.6
GRANDE RONDE RIVER												
Aneroid Lake No. 1	183	16	4S	45E	7480	3-30	113.7	45.3*	39.2	38.4	16	35.0
Aneroid Lake No. 2	183A	16	4S	45E	7000	3-30	85.6	32.6*	29.9	32.8	8	28.6

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DRAINAGE BASIN and SNOW COURSE	LOCATION Number or State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (In.)	SNOW COVER MEASUREMENTS Water Content (In.) 1950	1949	1948	Past Record Years of Record	Av. Water Content (Inches)
GRANDE RONDE RIVER (Cont'd.)												
Camp Carson	187	33	6S	36E	5970	3-28	41.4	14.1*	17.2	13.6	11	9.7
Anthony Lake	155	18	7S	37E	7125	3-31	87.9	32.6	33.6d	31.4	14	27.1
Beaver Reservoir	188	8	5S	37E	5340	3-31	43.7	16.7*	17.2	14.8	11	11.4
Meacham	221	24&25	1S	35E	4300	3-30	31.3	12.4	15.8	12.9	21	8.4
Moss Spring	186A	28	3S	41E	5850	3-29	73.3	27.1	33.8	29.7	12	24.8
Summit Springs	184	9	6S	37E	6000	Not measured			24.4	24.2	14	21.4
Taylor Green	185	3	6S	42E	5740	3-30	53.7	17.9	24.7	18.9	12	16.0
Tollgate	212	32	4N	38E	5070	3-30	80.0	32.5	44.5	34.0	19	27.1
LOWER COLUMBIA DRAINAGE												
WALLA WALLA RIVER												
Tollgate	212	32	4N	38E	5070	3-30	80.0	32.5	44.5	34.0	19	27.1
UMATILLA RIVER												
Emigrant Springs	222	29	1N	35E	3925	3-30	20.8	8.3	12.1	9.9	21	5.7
Lucky Strike	223	28	3S	32E	5050	3-28	54.6	18.3	17.3	15.3	11	12.3
Meacham	221	24&25	1S	35E	4300	3-30	31.3	12.4	15.8	12.9	21	8.4
Tollgate	212	32	4N	38E	5070	3-30	80.0	32.5	44.5	34.0	19	27.1
WILLOW CREEK												
Arbuckle Mountain	241	33	4S	29E	5400	3-29	45.6	16.0	16.1	12.5	21	10.0
JOHN DAY RIVER												
Arbuckle Mountain	241	33	4S	29E	5400	3-29	45.6	16.0	16.1	12.5	21	10.0

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DRAINAGE BASIN and SNOW COURSE	LOCATION					SNOW COVER MEASUREMENTS						
								Water Content (In.)			Past Record	
	Number or State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (In.)	1950	1949	1948	Years of Record	Av. Water Content (Inches)
JOHN DAY RIVER (Cont'd.)												
Beech Creek Summit	246A	4	12S	30E	4800	3-31	21.6	7.3	5.1	6.0	13	4.7
Blue Mountain Springs	133	21	15S	35E	5900	3-30	57.1	19.7	20.1	14.9	20	14.5
Blue Mountain Summit	141	6	12S	36E	5098	3-30	36.1	12.1*	10.8	9.2	15	6.9
Dixie Springs	244	28	11S	34E	6650	3-29	76.4	27.0*	26.8	24.1	14	23.0
Gold Center	249	21	9S	36E	5340	3-31	44.4	16.8	12.6	13.5	11	10.7
Izee Summit	964	28	16S	29E	5293	3-30	32.0	10.3	8.1	10.1	14	6.9
Olive Lake	245	14	9S	33½E	6000	3-29	67.4	21.7	26.5	30.0	14	19.0
Snow Mountain	965	1	19S	26E	6300	4-2	43.3	16.1	15.0	19.0	6	13.7
Starr Ridge	247B	20	15S	31E	5150	3-30	24.5	7.1	7.1	5.9	14	4.1
CROOKED RIVER												
Derr	343	14	13S	23E	5670	3-30	37.9	12.7	14.7	12.4	13	10.0
Marks Creek	344	25	12S	19E	4540	3-31	15.6	5.8	4.8	2.8	12	2.7
Ochoco Meadows	341	21	13S	20E	5200	3-31	36.9	14.0	15.8	11.5	21	8.9
Snow Mountain	965	1	19S	26E	6300	4-2	43.3	16.1	15.0	19.0	6	13.7
DESCHUTES RIVER												
Caldwell Ranch	326	30	21S	8E	4400	3-29	39.8	17.6	-	7.7	12	6.7
Cascade Summit	321	7	23S	6E	4880	4-1	106.4	51.3	44.9	34.2	20	29.0
Charlton Lake	327	23	21S	6E	5750	Not measured			-	-	11	26.1
Clear Lake	361	29	4S	9E	3500	3-29	70.5	25.6*	31.2	15.4	18	13.3
Crescent Lake	325	11	24S	6E	4760	3-30	42.7	20.5	18.0	12.0	15	7.7
Hogg Pass	351	24	13S	7½E	4755	4-2	132.3	58.9	73.4	45.8	12	40.2
Irish Taylor	329	25	20S	6E	5500	3-31	130.7	56.8	61.4[c]	-	1	61.4[c]
New Dutchman Flat	324A	21	18S	9E	6400	3-31	155.7	67.3	69.1	52.2	13	47.5
Rock Creek	362	1	4S	10E	4200	No report			-	13.6	4	12.6

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DRAINAGE BASIN and SNOW COURSE	LOCATION					SNOW COVER MEASUREMENTS						
								Water Content (In.)			Past Record	
	Number or State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (In.)	1950	1949	1948	Years of Record	Av. Water Content (Inches)
DESCHUTES RIVER (Cont'd.)												
Three Creeks Meadows	331	3	17S	9E	5600	3-31	66.1	30.9	34.8	19.9	21	19.2
Windigo Pass	744	20	25S	6E	5800	3-30	139.3	57.4	56.6	43.6	2	50.1
Willamette Pass	323	21	24S	5½E	5600	3-30	128.4	54.0	52.7	-	6	36.7
HOOD RIVER												
Brooks Meadows	431	2	2S	10E	4300	3-28	63.3	22.0*	27.7	14.1	17	10.2
Red Hill	434	21	1S	9E	4400	4-2	150.1	81.4	-	45.5	1	45.5
Tilly Jane-Mt. Hood	432	15	2S	9E	6000	3-26	150.0	59.1	-	41.0	1	41.0
Greenpoint Reservoir	433	28	2N	9E	3400	No report			-	13.4	1	13.4
SANDY RIVER												
Clear Lake	361	29	4S	9E	3500	3-29	70.5	25.6*	31.2	15.4	18	13.3
Phlox Point-Mt. Hood	452	6	3S	9E	5600	4-3	193.7	86.9	100.6d	68.7	13	59.7
Still Creek	451	25	3S	8½E	3700	3-28	110.5	42.8	46.2	26.3	13	21.2
CLACKAMAS RIVER												
Clackamas Lake	592	35	5S	8½E	3400	3-31	69.0	26.8	30.0	13.0	9	13.5
Peavine Ridge	591	14&15	6S	7E	3500	4-2	82.1	36.2	38.7	19.1	13	17.8
WILLAMETTE RIVER												
Breitenbush	551	21	9S	7E	2325	No report			13.6	4.6	7	3.2
Cascade Summit	321	7	23S	6E	4880	4-1	106.4	51.3	44.9	34.2	20	29.0
Champion	522	12	23S	1E	4500	3-31	106.0	46.9	42.8	36.6	11	24.1
Charlton Lake	327	23	21S	6E	5750	Not measured			-	-	11	26.1

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								Water Content (In.)			Past Record	
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WILLAMETTE RIVER (Cont'd.)												
Hogg Pass	351	24	13S	7½E	4755	4-2	132.3	58.9	73.4	45.8	12	40.2
McKenzie	531	35	15S	7½E	4800	4-1	132.2	65.8	67.9	46.6	10	38.3
Marion Forks	553	28	11S	7E	2730	4-2	66.4	32.8	28.7	10.4	9	9.7
Mary's Peak	541	21	12S	7W	3620	No report			27.8	13.2	11	10.3
Santiam Junction	552	14	13S	7E	3990	4-2	92.5	43.1	43.2	25.4	9	20.7
Waldo Lake	521A	15	21S	6E	5500	4-1	103.8	45.9	-	29.0	12	25.2
Willamette Pass	323	21	24S	5½E	5600	3-30	128.4	54.0	52.7	-	6	36.7
INTERIOR DRAINAGE												
SILVER LAKE												
Silver Creek	942	25&26	29S	13E	4900	3-30	0.0	0.0	0.0	0.0	9	0.7
CHEWAUCAN RIVER												
Mill Creek	922	1	34S	17E	6200	3-28	27.1	9.6	11.4	4.9	11	5.7
HARNEY BASIN												
Fish Creek	952	4	33S	33E	7900	3-29	81.0	27.0	24.2	25.1	10	23.6
Idylwild Camp	961A	33	20S	31E	5200	3-30	21.8	7.8	6.0	4.8	19	3.2
Izee Summit	964	28	16S	29E	5293	3-30	32.0	10.3	8.1	10.1	14	6.9
Rock Spring	134	23	18S	32E	5100	3-30	22.8	8.4	6.2	5.0	14	4.3
Silvies	951	35	32S	33E	6900	3-28	41.6	15.0	14.2	15.3	12	13.4
Snow Mountain	965	1	19S	26E	6300	4-2	43.3	16.1	15.0	19.0	6	13.7
Starr Ridge	247B	20	15S	31E	5150	3-30	24.5	7.1	7.1	5.9	14	4.1

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GUANO LAKE												
Bald Mountain	Nev.	17	45N	21E	6720	3-30	6.2	2.0	9.1	2.2	10	3.0
WARNER LAKE												
Camas Creek	911A	5	39S	21E	5720	3-28	34.9	12.0	14.5	8.8	11	9.2
WEST COAST DRAINAGE												
UMPQUA RIVER												
Champion	522	12	23S	1E	4500	3-31	106.0	46.9	42.8	36.6	11	24.1
Diamond Lake	743	29	27S	6E	5315	3-28	82.4	30.0	30.9	25.6	21	18.0
N. Umpqua Nr. Lake Cr.	742	19	26S	6E	4215	3-28	64.6	22.8	24.2	14.8	13	10.4
Trap Creek	741	1	27S	4E	3800	4-4	45.0	18.4	10.5	13.1	13	10.2
Whaleback	7217	3	31S	2E	5140	4-2	108.7	47.1	49.0	35.0	12	32.9
Windigo Pass	944	20	25S	6E	5800	3-30	139.3	57.4	56.6	43.6	2	50.1
ROGUE RIVER												
Althouse	7216	17	41S	7W	4400	3-31	35.9	14.5	7.2	3.5	13	6.5
Annie Spring	831	19	31S	6E	6018	3-30	129.0	52.3	58.2	46.9	17	43.2
Big Red Mountain	729	31	40S	1W	6500	3-28	77.8	29.3	36.7	20.5	14	28.4
Billie Creek Divide	722	30	36S	5E	5300	4-1	70.2	30.2	34.6	29.0	19	23.1
Fish Lake	725	3	37S	4E	4865	3-31	47.0	21.4	23.3	13.8	16	12.7
Grayback Peak	727	9	40S	5W	6000	3-31	70.4	30.0	36.9	14.6	14	24.6
Hobart Lake	7221	17	40S	3E	5010	3-30	15.3	6.7	8.9	5.3	2	7.1
Hyatt Prairie Res.	723	15	39S	3E	4900	3-29	35.8	13.8	15.8	12.3	17	8.4
Little Red Mtn.	7210	25	40S	2W	6500	3-29	62.2	22.5	30.6	17.9	14	22.2

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ROGUE RIVER (Cont'd.)												
Park Headquarters	838	8	31S	6E	6450	3-30	159.3	65.6	70.9	49.8	6	59.0
Scragg Mtn. (Calif.)	7220	9	47N	10W	6200	3-30	86.6	40.0	47.9	21.7	8	23.7
Seven Lakes No. 1	7221	3	34S	5E	6800	3-29	175.4	74.5	77.6	37.2	14	54.5
Seven Lakes No. 2	7212	26	33S	5E	6200	3-29	140.0	52.0	60.3	33.1	14	41.5
Silver Burns	7219	30	30S	4E	3720	4-1	49.5	23.0	16.2	11.2	13	9.1
Siskiyou Summit	728	17	40S	2E	4630	3-31	13.5	5.7	5.8	4.4	14	3.4
South Fork Canal	7218	12	33S	3E	3500	4-1	14.0	6.0	3.8	0.0	13	0.9
Wagner Butte	7213	1	40S	1W	6900	3-31	57.4	21.7	23.2	18.8	15	16.8
Whaleback	7217	3	31S	2E	5140	4-2	108.7	47.1	49.0	35.0	12	32.9
KLAMATH LAKE BASIN												
Annie Spring	831	19	31S	6E	6018	3-30	129.0	52.3	58.2	46.9	17	43.2
Beatty 2/		22	36S	12E	4300	3-31	0.0	0.0	0.0	0.0	23	0.0
Billie Creek Divide	722	30	36S	5E	5300	4-1	70.2	30.2	34.6	29.0	19	23.1
Bly 101 Ranch 2/		22	35S	14E	4800	3-31	0.0	0.0	0.0	0.0	22	0.0
Chemult No. 1	834	21	27S	8E	4760	3-31	33.7	14.2	12.8	7.3	13	7.3
Chiloquin 2/		34	34S	7E	4187	3-31	0.0	0.0	0.0	0.0	22	0.1
Crowder Flat (Calif.)		30	47N	11E	5200	4-2	0.0	0.0	0.7	0.5[d]	10	0.1
Crystal 2/		26	34S	6E	4200	3-31	29.0	12.6	9.5	4.5	20	4.5
Gerber	839	12	39S	13E	4850	No report			0.0	-	1	0.0
Fort Klamath 2/		22	33S	7½E	4150	3-31	3.0	1.1	2.5	0.0	23	0.9
Harriman Lodge 2/		3	36S	6E	4200	3-31	9.0	4.0	0.0	0.0	22	6.9
Hyatt Prairie Res.	723	15	39S	3E	4900	3-29	35.8	13.8	15.8	12.3	17	8.4
Kirk 2/		1	33S	7E	4533	3-31	10.0	2.6	-	-	19	1.6
Lake of the Woods	835	11	37S	5E	4960	No report			16.7	8.0	13	9.1
Park Headquarters	838	8	31S	6E	6450	3-30	159.3	65.6	70.9	49.8	6	59.0
Quartz Mountain	811	2	38S	16E	5320	4-2	12.1	5.7	9.4	4.3	19	4.1

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KLAMATH LAKE BASIN (Cont'd.)												
Quartz Mountain 2/		33	37S	16E	5504	4-2	7.0	3.0	7.5	4.5	19	4.6
Seven Lakes No. 1	7211	3	34S	5E	6800	3-29	175.4	74.5	77.6	37.2	14	54.5
Seven Lakes No. 2	7212	26	33S	5E	6200	3-29	140.0	52.0	60.3	33.1	14	41.5
Strawberry	837	4	40S	16E	5600	4-1	25.8	10.6*	13.2	8.3	9	5.0
Summer Rim	841	15	33S	16E	7200	3-26	57.9	20.4	14.9	14.8	13	15.7
Sun Mountain	836	22	32S	7½E	5350	3-30	87.0	28.8	31.9	18.3	13	26.1
Taylor Butte	842	16	33S	11E	5100	3-31	12.2	5.6	5.0	2.0	13	3.1
Yamsey 2/		20	31S	11E	4600	3-31	0.0	0.0	1.1	0.0	19	0.5
GOOSE LAKE BASIN												
Camas Creek	911A	5	39S	21E	5720	3-28	34.9	12.0	14.5	8.8	11	9.2
Quartz Mountain	811	2	38S	16E	5320	4-2	12.1	5.7	9.4	4.3	19	4.1
Quartz Mountain 2/		33	37S	16E	5504	4-2	7.0	3.0	7.5	4.5	19	4.6
Strawberry	837	4	40S	16E	5600	4-1	25.8	10.6*	13.2	8.3	9	5.0

2/ Water content determined by melting a measured sample (The California Oregon Power Company's Station).

* Telegraphic - Subject to minor revision

SPECIAL MID-MARCH SNOW SURVEYS; SNOW SURVEY DATA NOT PUBLISHED IN MARCH 1 REPORT

DRAINAGE BASIN and SNOW COURSE	LOCATION					SNOW COVER MEASUREMENTS						
								Water Content (In.)			Past Record	
	Number or State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (In.)	1950	1949	1948	Years of Record	Av. Water Content (Inches)
MALHEUR RIVER												
Barney Creek	143	16	14S	36E	5950	2-28	23.9	8.7	10.8	6.0	5	7.6
WILLAMETTE RIVER												
Champion	522	12	23S	1E	4500	3-15	94.6	42.0		No comparative data		
ROGUE RIVER												
Billie Creek Divide	722	30	36S	5E	5300	2-24	68.1	28.4	-	20.2	17	21.1
Billie Creek Divide	722	30	36S	5E	5300	3-14	67.6	27.0		No comparative data		
Fish Lake	725	3	37S	4E	4865	2-25	38.8	17.1	-	7.8	14	11.6
Fish Lake	725	3	37S	4E	4865	3-12	44.4	16.3	22.9	-	1	22.9
CORRECTION OF DATA PUBLISHED LAST MONTH												
HOOD RIVER												
Greenpoint Reservoir	433	28	2N	9E	3400	2-28	69.6	30.4	-	10.5	1	10.5
Red Hill	434	21	1S	9E	4400	3-4	126.1	69.0	78.0	35.6	2	56.8

VALLEY PRECIPITATION[a]

DRAINAGE DIVISIONS	CURRENT YEAR Oct. 1, 1949 - April 1, 1950		LAST YEAR Oct. 1, 1948 - April 1, 1949	
	P	D	P	D
Southeastern	6.23	-0.21	3.91	-1.93
Southcentral	4.70	-1.61	4.79	-1.34
Central	6.57	+0.89	7.40	+0.19
Columbia River	12.58	+1.54	12.28	+1.31
Wallowa Mountains	9.61	+0.17	7.88	-1.21
Blue Mountains	10.19	-0.10	8.66	-0.81
Southern	18.50	+0.57	16.44	-1.48
Willamette Valley	49.42	+9.60	46.41	+5.27

P - Inches Precipitation D - Inches Departure from Normal

Southeastern — Malheur and Owyhee drainages.

Southcentral — Interior Basin drainages and Goose Lake.

Central — Deschutes and Crooked drainages.

Columbia River — Lower valleys of the Walla Walla, Umatilla, John Day, Deschutes and Hood River drainages.

Wallowa Mountains — Imnaha, Wallowa, Catherine, Eagle and Pine drainages.

Blue Mountains — Upper valleys of the Burnt, Powder, Grande Ronde, Umatilla, Walla Walla, John Day, Silvies and Malheur drainages.

Southern — Umpqua, Rogue and Klamath drainages.

Willamette Valley — All Willamette drainages.

Note: Stations used for determining the averages for the current year are not necessarily the same as those used last year.

a - Preliminary data computed from Weather Bureau records.

The following organizations cooperate in the Oregon snow survey work:

STATE
- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon Agricultural Experiment Station
- Oregon State Engineer and corps of State Watermasters
- Oregon State Highway Engineers

FEDERAL
- Department of Agriculture
  - Forest Service
  - Soil Conservation Service
- Department of Commerce
  - Weather Bureau
- Department of the Interior
  - Bonneville Power Administration
  - Bureau of Reclamation
  - Fish and Wildlife Service
  - Geological Survey
  - Indian Service
  - National Park Service
- War Department
  - Army Engineer Corps

PUBLIC UTILITIES
- California-Pacific Utilities Company
- Portland General Electric Company
- The California Oregon Power Company

MUNICIPALITIES
- City of Baker
- City of Corvallis
- City of LaGrande
- City of The Dalles

IRRIGATION DISTRICTS
- Associated Ditch Companies
- Central Oregon Irrigation District
- Deschutes County Municipal Improvement District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Jordan Valley Irrigation District
- Lakeview Water Users Incorporated
- Medford Irrigation District
- Ochoco Irrigation District
- Rogue River Irrigation District
- Talent Irrigation District
- Vale-Oregon Irrigation District
- Warmsprings Irrigation District

PRIVATE ORGANIZATIONS
- Amalgamated Sugar Company
- South Wasco Soil Conservation District
- The Crag Rats-Hood River-Oregon

Federal - State - Private

COOPERATIVE SNOW SURVEYS

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Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"